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JrCOSTEP – Summer 2005
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My COSTEP experience has been one of the most educational and rewarding experience. Over the past 11 weeks the knowledge I have gained will be a valuable asset to my career in the field of public health. I am a student at Western Carolina University working on a Bachelors of Science in Environmental Health and a Bachelors of Science in Biology. To be honest I didn't know much about the United States Public Health Service (USPHS) or Alaska until I got here. I applied for Alaska because I love adventure and always wanted to come to the last frontier. It really is an untouched place filled with that beckon opportunities for adventure.



I was selected by Commander Michael G. Halko, MS, RS, who is the Director of Environmental Health Department for the Bristol Bay Area Health Corporation. The Bristol Bay Area is in the South West region of Alaska and home of the Kakanak hospital. Our office which is located in Dillingham serves 34 villages in this region. More than half of the region consist Alaskan Natives which are Yupik Eskimos, Athabascans, and Aleuts.

In rural Alaska there are many challenges that we face on a daily basis that are unique to this area. There is still very basic service in 33% of Alaskan villages. Basic sanitation is a serious problem in rural Alaska. Some of the many challenges that Environmental Health Specialists face in Alaska include: harsh environments, isolated locations, soil conditions, logistics, climate change, increasing in population requires infrastructure expansion, and aging existing facilities need replacement. Many residents in Alaska still use the honey bucket method for means of disposing raw sewage.

Over the summer, I have been exposed to few of the many challenges present here in Alaska. Many Alaskan villages have a lot of dogs present in their communities used for sport, labor, or just as pets. Rabies is a big part of the program. The rabies program includes dog shots, animal bite investigations, and keeping files on this information. Anyone can become a certified lay vaccinator by attending a short training session presented by a lay vaccinator at large. We try to have at least one local certified lay vaccinator in each village to administer shots whenever need be. Every time we went on a village trip this summer, we offer our services and vaccinate dogs.

The first time a dog gets vaccinated, the shot is good for one year, and then every time afterwards is good for three years. There are a lot of dog bites in rural Alaska. When a dog bite occurs, we start a rabies investigation. This is to assure that whoever gets bitten, receives the proper treatment. Usually the health aid in the village or a physician will contact our office and fax us a completed rabies investigation form. The first thing is to contact the owner to make sure the 10 day quarantine gets underway. The 10 day quarantine consists of keeping the dog tied up in a location where it's behavior and eating habits can be monitored. If there are any changes in the habits of the animal, we ask the owner to notify us immediately. If it seems the animal is rabid, we have to put the animal down, cut off its head and send it to the virology lab in Anchorage. If the tests show the animal is for sure rabid, treatment for the person bitten will begin immediately. Sometimes it is difficult to locate the owner of the animal to make sure the quarantine will occur. If that is the case, sometimes we have to contact the local authorities to get assistance in the matter. Here in the office we keep paper records of all vaccinations given in the Bristol Bay Region, we also back the files electronically.

Every July, a Consumer Confidence Report (CCR) is required by the state for each village that has a public water system. The report is a water quality report showing the contaminants present, the monitoring done on the system, and various other violations occurring within the community's water system. It can also be used as a marketing tool for the community to brag about new improvements being made on their system or pat the water operator on the back for safe guarding the community. If the villages do not complete these reports it affects the state and federal sanitation funding they receive. This makes a huge impact on the community, most funding comes from grants. Without money, proper facilities can not be built or maintained. We hope that eventually someone in every village will be properly trained to complete the Consumer Confidence Reports annually. It is our job to serve the community with compliance assistance and complete the reports if they are not able. The goal is to build capacity and train the Utility manager/Water Operator to complete the CCR. During the first month of my internship, I completed about 12 or 13 of these reports.

Traveling to the villages to conduct inspections and surveys can sometimes be difficult due to weather and funding. Many village trips are done by small planes or boats due to few roads and impassible terrain. The first village trip I went on was to Platinum. Platinum is approximately 120 northwest of Dillingham. It has a rough population of 40. While in Platinum, I observed Bill Justice while he conducted a survey of pump has and an inspection of the clinic. My next trip was a boating trip up the Nushagak River. The river is one of the most popular sport fishing locations in

the state. There are several lodges on the river for paying customers. Most of the lodges either get there water from a watering hole or have drilled wells on there property. Chris Dankmeyer,



Ward Jones (Injury Prevention Director), and I went up river to the annual fishing guide meeting. It was pouring rain with 40 mph winds. It is tradition to hold the meeting outside, so for about thirty minutes we got rained on and almost got blown down river. The purpose of this meeting is to inform the guides of new rules and regulations, any predictions made by fish and game, safety precautions that should be taken, and we were there to offer our services to test the water. We didn't have too many takers during the meeting (probably because everyone wanted to get out of the rain). The next day we went to the Portage Creek watering hole and took a sample, this is where many people get there drinking water. We went to the lodges and that requested samples and took these. We also stopped at various other lodges along the river asking if they wanted their water sampled. We did get a few more takers. That night we flew from Portage Creek back to Dillingham. We ran the water samples and the watering hole at Portage Creek tested positive for total coliform. When this happens, it is our job to make sure the community is informed of the contaminants in their drinking water. We ordered boil water and requested that a sign be placed next to the watering hole with this information listed on it. My next trip was to Aleknagik, which is the only village that can be driven to from Dillingham. The village consists of the South shore and North shore. Chris and I arrived and the South shore and I observed him while he conducted an inspection of the clinic. Afterwards, we got in a boat and went across the lake to the north shore. I completed the clinic inspection at the North shore. They are building a new land fill there, so we went out to check on the progress of the project. After we returned from the village, Chris taught me how to write the report for the south shore and I completed the report for the north shore. My last village trip was to Clarks Point, which is just across the bay from Dillingham. We flew into the village in the morning and began work immediately. The first thing we did was the solid waste inspection. There is a check list to go through while walking through the dump and then the report is written later. Next, I did the clinic inspection and then we drove around the village on a four wheeler going door to door offering dog shots. We ended up giving about 20 shots. That evening we met with the back up water operator and he showed us around the pump house. We spent the night and the next morning, we took care of getting copies of the CCR report together to be distributed to the residents of the village. For the rest of the day we waited for the fog to lift so the pilot could come and pick us up. After we returned I complete the reports on the clinic inspection and the solid waste inspection.

Other than the things I have already mentioned, there were several little projects I helped with out with around the office. I also got to experience the way Alaskans live off the land by subsistence fishing, berry picking to make jam, and many others. I got to experience the beautiful scenery of the last frontier and made many new friends. It has been a great, rewarding experience that will stick with me forever no matter what job I take in the future. I highly recommend a COSTEP in bush Alaska to anyone who is perusing an environmental health career.